FINAL DECISION DOCUMENTATION and DECISION RATIONALE

Stretcher Timber Sale Harvest and Reforestation Plan

Environmental Assessment Number OR080-98-25
Tract No. 00-502

USDI - Bureau of Land Management
Oregon State Office, Salem District, Cascades Resource Area

Sections 25 and 36, Township 10 South, Range 1 East;
Section 31, Township 10 South, Range 2 East, Willamette Meridian

Linn County, Oregon

I. BACKGROUND

In 1998, an IDT (interdisciplinary team) analyzed approximately 400 acres managed by the Cascades Resource Area, Salem District, BLM (Bureau of Land Management) for regeneration harvest and 300 acres for partial harvest. The areas analyzed were located within sections 25, 35 and 36, Township 10 South, Range 1 East, and section 31, Township 10 South, Range 2 East, Willamette Meridian; within the Connectivity land use allocation of the Thomas Creek Watershed. An environmental analysis was conducted and documented in the Stretcher Environmental Assessment (EA) Number OR080-98-25.

The regeneration harvest stands analyzed contain Douglas-fir/western hemlock stands 70-135 years old with stand diameters from 12" to 52" DBH (diameter breast height). The commercial thinning stands analyzed contain western hemlock / Douglas-fir / noble fir stands 38 to 52 years old with stand diameters from 9" to 22" DBH (EA pg. 14).

Approximately 557 acres were eliminated from further consideration based on field reconnaissance (EA pp.10). The Environmental Assessment documented a proposal to harvest approximately 141 acres within the Matrix lands (regeneration harvest and partial cut) and to thin approximately 2 acres in a Riparian Reserve. The proposed action also included topping trees to create snag habitat. Temporary road construction, road renovation, and road decommissioning were also part of the proposal.

A Finding of No Significant Impact was signed on December 14, 1998 and the EA and FONSI were made available for public review and comment on December 16, 1998.

Since the release of the EA, the interdisciplinary team has identified the need to update some information due to the March 1999 listing of the upper Willamette steelhead trout and chinook salmon, the results from component 2 ("Survey and Manage") surveys, and further field reconnaissance. These changes to the proposed action are described in the following section which also describes any changes to the analysis and determination of effects as presented in the December 14, 1998 EA.

II. MODIFICATIONS TO THE PROPOSED ACTION/ CHANGES TO AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

1. Changes to the Proposed Action

a. *Unit acres* - Unit acres have been finalized based on unit traverse and sale layout. Acres were reduced after identifying additional "Survey and Manage" reserves based on the component 2 (Survey and Manage) survey results. See Appendix B for the "Survey and Manage" Species Survey Summaries. Riparian thinning has been dropped. **Table 1a** shows the changes in unit numbers, acres and reserve trees.

Table 1a: Changes in Unit Numbers and Acres

Unit Numbers		Unit Acres			Reserved Green Trees per Acre	
Current	**EA**	**Current**	**EA**	**Change**	**Current**	**EA**
1	B [Regeneration Harvest]	27	31	-4	16	16-22
2	A [Regeneration Harvest]	17	27	-10	25	16-22
3	C [Thinning (Partial Cut)]	46	83	-37	n/a	n/a
R/W 3[1] [Regeneration Harvest]		2	0	2	n/a	
DROPPED	C [Thinning within Riparian Reserve]	0	2	-2		
Regeneration Harvest		46	58	-12		
Thinning (Partial Cut)		46	85	-39		
Total		92	143	-51		
Average reserved green trees per acre					19	

[1] Harvesting the rights-of-way for new road construction within the thinning unit

a. *Timber volume* - Final timber volume estimates for the sale have been determined through a field timber cruise. Cruise volumes have increased from 5355 to 7234 hundred cubic feet for an overall increase of 1879 hundred cubic feet. The increase in volume is due to the measured volume per acre being greater than the EA estimate. **Table 3** in Appendix A shows unit volumes.

b. *Logging Systems* - Logging Systems have also changed due to the location of additional "Survey and Manage" reserves based on the component 2 (Survey and Manage) survey results (see Table 1b).

1) Ground based yarding would take place in two areas of unit 1 and the southeast corner of unit 2.

2) Down hill skyline yarding would take place in the northeast corner of unit 1 above the road.

Table 1b: Changes by Logging System

Unit Numbers		Ground Based Yarding			Cable Yarding			Downhill Yarding		
Current	EA	Current	EA	Change	Current	EA	Change	Current	EA	Change
1	B	7	0	7	20	31	-11	4	0	4
2	A	4	5	-1	13	22	-9	0	0	0
3	C	46	85	-39	0	0	0	0	0	0
R/W 3		2	0	2	0	0	0	0	0	0
Total		59	90	-31	33	53	-20	4	0	4

c. *Road Construction* - The road construction described in the EA was based on preliminary estimates. Road lengths changed as a result of final surveys.

1) Unit 1: road miles were adjusted based on field measurements

2) Unit 2: road miles changed because the original route accessed only a portion of the unit. Another road design was added to provide adequate access to the entire unit.

3) Unit 3: Field reconnaissance indicated the need for additional short spurs.

These differences are shown in the following table (Table 2a). Road construction standards are unchanged.

Table 2a: Changes in Road Length				
Unit Numbers		**New Construction** (feet)		
Current	**EA**	**Current**	**EA**	**Change**
1	B	665	600	65
2	A	1480	1500	-20
3	C	1305	600	705
Total		3450	2700	750

d. *Road Decommissioning* - All new road construction, as described in Table 2a, would be decommissioned. Additional existing roads were identified for road decommissioning (Table 2b).

Table 2b: Changes in Road Decommissioning (in feet)			
	Current	**EA**	**Change**
New Construction	3450	2700	750
Existing Roads	8280	4000	4280
Total Decommissioning	11730	6700	5030

e. *Fire Trails* - The EA states that 8,200 feet of fire trails would be constructed. Approximately 7,900 feet of trails would actually be required to adequately protect reserve areas from prescribed fire encroachment.

f. *Optional Quarry Development* - An existing rock quarry on BLM lands in Sec 23, T. 10 S., R. 1 E. may be reopened for a road rock source. If so, vegetation would be cleared and topsoil removed from less than one acre. The habitat at the quarry site is fragmented mature forest vegetation. Fungi surveys at this quarry are not yet complete. This quarry is scheduled to be surveyed Fall 2000 and Spring 2001. The quarry would not be used unless approved by the botanist after the completion of fungi surveys.

2. Changes to the Project Design Features/Mitigation Measures

a. *Seasonal Restrictions*
   1) Bark Slippage: No falling or yarding would take place in Unit 3 (partial cut unit) during April 1 through June 30.
   2) Tractor and Downhill Yarding Operations: No tractor operations, including ground based yarding and road ripping, nor downhill yarding or hauling on natural surface roads would take place November 1 through May 31 or during periods with wet soil conditions.

b. *Reserve Trees:*
   1) Angle cut the ends of wildlife trees, if felled for safety, to identify that they should be left for coarse woody debris.
   2) Reserve all hardwoods greater than 12 inches in diameter.

c. *Survey and Manage Buffers:* Variable radius buffers (see Appendix B) have been placed around all "Survey and Manage" mollusks and around population centers of fungi as identified during surveys.

d. *Skid Roads* - With ground based logging, use existing skid roads, where feasible. New skid roads would be at a least 150 feet apart. All new skid roads and those existing skid roads used for this project would be ripped.

e. *Rights-of-way on new road construction in Unit 3:* When the new road construction is decommissioned the roads rights-of-way will also be seeded.

f. *Slashing* - In units 1 and 2, cut (slash) all vegetation, not reserved and greater than 3 ft. tall to minimize brush competition with planted seedlings (EA pp. 7), except for a 50 ft. visual buffer along the Neal Creek Road.

g. *Optional Quarry Development* - A seasonal restriction on blasting from March 1 through September 30 is recommended due to suitable northern spotted owl habitat within one mile of the quarry site.

3. Changes to the Affected Environment

a. *Rock Quarry (optional):* This project involves opening of an existing rock quarry on BLM lands in 10S-1E section 23. The project is not located within the provincial home range radius of any known spotted owl sites. There is a very limited amount of fragmented spotted owl habitat within 1 mile of the quarry site. Surveys for spotted owls have been conducted in the past, and no spotted owls were found. This would be a habitat altering project involving less than one acre of fragmented mature forest vegetation.

4. Changes to the Environmental Consequences

a. *Changes in Acres, Road Construction and Decommissioning, and fire trail construction:*

1) Wildlife - There would be a short term impact to wildlife due to an increase in the amount of road being constructed but this would be more than offset by the even greater amount of roads to be decommissioned. Road densities would be further reduced, and road decommissioning would provide additional benefits by further reducing human disturbance to wildlife (vehicular access) in the vicinity of the road closures.

2) Fisheries - None of the changes in the proposed action would increase the effects of the project on Upper Willamette River steelhead or Upper Willamette River chinook salmon, or Critical Habitat for either species. *(Changes in 3 Cascades RA Timber Sales Since Consultation was Completed 8/1/00 - Stretcher project file)*

3) Soils and Water -There would be no measurable change in short term impacts to soil and water resources with the changes to the proposed action. Limiting tractor operations, including ground based yarding and road ripping, downhill yarding and hauling on natural surface roads to the dry periods of the year would further reduce the risk of erosion and sedimentation from these activities. The additional decommissioning of constructed and existing roads would further decrease the number of compacted acres thereby allowing increased water infiltration and reduced runoff and sedimentation. There would be a decrease in channel expansion as a result of road decommissioning, returning timing and magnitude of peak flows to more natural conditions.

b. *Optional Quarry Development* - There would be a loss of less than one acre of fragmented mature forest habitat.

5. Additional Updates

The area was cruised using the 3P fall buck and scale cruising system (EA pg. 4). Twenty five trees were felled and measured in February 1999. These trees were felled prior to the establishment of the latest "Survey and Manage" reserve areas. Approximately 5 trees were felled in these areas.

III. DECISION

The decision to be made by the Cascades Resource Area Manager is whether or not to prepare an environmental impact statement, and whether to approve the Stretcher timber sale as proposed, not at all, or to some other extent.

Based on site-specific analysis in the Environmental Assessment, the supporting project record, management recommendations contained in the Watershed Analysis (Thomas Creek) dated April 1997, as well as the management direction contained in the RMP (*Salem District Resource Management Plan*), dated May, 1995, I have decided to implement Altemative A of the Stretcher Environmental Assessment (EA # OR080-98-25) (EA pp. 4-13) with the modifications in Section II -1 and 2, above, hereafter referred to as the "selected action " (see attached map and **Table 3** in Appendix A). The following is a summary of this decision.

1. Regeneration harvest of approximately 46 acres of Matrix lands from 3 units (Units 1, 2, and R/W 3[2]) within the Connectivity land use allocation. It is expected that this will yield approximately 4936 hundred cubic feet (CCF).

2. Commercial thinning (Partial Cut) of approximately 46 acres of Matrix lands (Unit 3). It is expected that this will yield approximately 2298 hundred cubic feet (CCF).

3. Tree Topping: Up to four trees per acre would be topped within proposed units, adjacent stands, and riparian reserves to provide structural diversity, wildlife habitat and to improve wind firmness.

4. Road Construction: Approximately 3450 feet of temporary new road would be constructed.

5. Road Renovation: Road maintenance or renovation (brushing, blading, or rocking) would occur on approximately 20,050 feet of existing road.

6. Road decommissioning and skid trail obliteration. Approximately 11,730 feet of new road construction and existing roads would be decommissioned then blocked or gated.

7. Compliance with Direction

   The selected action is consistent with applicable land use plans, policies, and programs (EA, pp. 4).

   a. Programmatic documents covering this proposal are the:

      - *Salem District Resource Management Plan (May 12, 1995)*
      - *Record of Decision (ROD) for Amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl (April, 1994)*

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[2] R/W 3 = Harvesting trees from roads rights-of-way in Unit 3

- *Final Supplemental Environmental Impact Statement on Management of Habitat for Late-Successional Forest Related Species Within the Range of the Northern Spotted Owl (SEIS, February, 1994)*
- *Western Oregon Program-Management of Competing Vegetation Final Environmental Impact Statement (VMFEIS, February 1989)* and the *Western Oregon Program-Management of Competing Vegetation Record of Decision (August 1992).*
- *Environmental Assessment to Change the Implementation Schedule for Survey and Manage and Protection Buffer Species (October 7, 1998)*
- *Plan Maintenance Documentation: Decision to Delay the Effective Date for Surveying 7 "Survey and Manage" and Protection Buffer Species (March 2000)*

The Environmental Assessment (EA) and this FONSI are tiered to the mentioned environmental documents. All of these documents may be reviewed at the Cascades Resource Area office.

a. Survey and Manage: The Component 2 surveys for this project are in compliance with the Stipulation for Order Dismissing the Action (August 2, 1999) in the ONRC Action lawsuit[3]. See appendix B and the Stretcher Project file.

b. Monitoring activities related to this sale will be done as described in Appendix J of the RMP (May, 1995*)*.

II. DECISION RATIONALE

Considering public comment, the content of the EA and supporting project record, the management recommendations contained in the Thomas Creek Watershed Analysis, and the management direction contained in the RMP, I have decided to implement the selected action as described above. My rationale for this decision follows:

The selected action addresses the identified purpose and need for action in that it will meet the need for forest products and forest habitat as described in the *Salem District Resource Management Plan* (RMP, 1995, pp. 1 and 2) . The proposal would also provide for retention of important ecological components within the forest management area. (EA pp. 1). Also, the selected action provides social and economic benefits to local communities through the supply of approximately 7,234 hundred cubic feet of merchantable timber to local mills and some contract work. In addition, thinning unit 3 would contribute to the distribution, diversity and complexity of the upland area of the unit (EA, pp. 28).

Thinning unit 3 would also meet the following goals (Memo from Jim England - wildlife

[3] Oregon Natural Resources Council v. United States Forest Service and Bureau of Land Management, Civil No. 98-0942WD

biologist and Dave Rosling - Riparian Ecologist to the Stretcher TS File: June 15,1998, Stretcher Project file):

1. "The area is currently very dense for trees and growth rates are not high. A partial cut treatment would help to boost growth rates on residual trees. This would give us larger trees in a shorter time for suitable snags and LWD (coarse woody debris).

2. Selected trees with high crown ratios would have competing trees thinned enough to maintain high live crown ratios, thus helping to form limby wolf trees scattered through the stand.

3. Because the area is so densely stocked, understory development is poor. Both understory trees, brush and herbs are lacking in the proposed treatment area. This action would help to quickly introduce these structural attributes to the area.

4. The RMP calls for "recovery of old growth conditions in approximately 100-200 years" on regeneration harvest on Connectivity /Diversity land (RMP pp. 48). This would include early density management treatments such as the one proposed to attain this goal."

The "no action" alternative was not selected because it does not address the purpose and need for action. It also does not meet the above partial cut / thinning goals described above.

III. PUBLIC INVOLVEMENT/ CONSULTATION/COORDINATION

1. Scoping

A description of the proposal was included in the Salem Bureau of Land Management *Project Update* which is mailed to more than 900 individuals and organizations four times each year. A letter asking for scoping input on the proposal was mailed on April 20, 1998 to six adjacent landowners and individuals or organizations who have expressed an interest in management activities in the resource area as a whole or in this drainage. Letters were also sent to the Cities of Jefferson and Scio, the Linn County Board of Commissioners, Oregon Department of Forestry, Oregon Department of Fish and Wildlife, the Willamette National Forest, the U. S. Fish & Wildlife Service, the National Marine Fisheries Service, the Environmental Protection Agency, and the Confederated tribes of Warm Springs and Grande Ronde.

2. Comment Period

The EA was made available for public review for forty-five days commencing December 16, 1998. Copies of the EA were sent to the Confederated Tribes of Grande Ronde, the Confederated Tribes of Warm Springs, the U. S. Forest Service, Environmental Protection Agency, National Marine Fisheries Service, Fish and Wildlife Service, the State of Oregon's Department of Fish and Wildlife, Department of Forestry, the Linn County Board of Commissioners, the Cities of Scio and Jefferson, one adjacent land owner, five interest groups and one individual.

3. Comments

Written comments were received from one individual and were considered for modification of the proposed action or performing additional analysis. Copies of the comments and responses are available in the Stretcher project file in the Salem District office.

4. Consultation/Coordination

The Stretcher timber sale was submitted for Formal Consultation with U.S. Fish and Wildlife Service on August 12, 1998. Consultation was concluded on September 29, 1998 (Service Log #98-F-381). As a result of consultation, the U.S. Fish and Wildlife Service found that the sale would not likely jeopardize the continued existence of the spotted owl.

At the time of completion of the Environmental Assessment for the Stretcher Timber Sale in December, 1998, Upper Willamette River (UWR) steelhead and UWR chinook salmon were species proposed for listing as threatened by the National Marine Fisheries Service (NMFS) under the Endangered Species Act. UWR Steelhead were listed on March 25, 1999, and UWR chinook salmon were listed on March 24, 1999. The Stretcher Timber Sale was determined to be 'may affect, not likely to adversely affect' UWR steelhead and UWR chinook salmon. Concurrence by the NMFS with that determination was received by Salem District BLM in a letter dated August 6, 1999.

IV. CONCLUSION

I have determined that change to the Finding of No Significant Impact (FONSI) for the Stretcher Timber Sale is not necessary for these reasons:

The existing EA for the Stretcher Timber Sale, along with additional information contained in this document, fully covers the project as modified by the proposed mitigation and adjustments required by the surveys conducted for Survey and Manage species, and Section 7 consultation. The action as amended is within the scope of the alternatives identified in the original EA, and the environmental impacts are within those described in the original EA and are less than or the same as those anticipated for the proposed action in that assessment.

There are no significant new circumstances or facts relevant to environmental concerns and bearing on the modification to the proposed action or its impacts which were not addressed in the EA. The EA anticipated protecting Survey and Manage species in accordance with the Record of Decision for the Northwest Forest Plan and the Salem District.

The surveys conducted for this sale complete the survey requirements for this sale as amended by the *Plan Maintenance Documentation: Decision to Delay the Effective Date for Surveying 7 "Survey and Manage" and Protection Buffer Species*, which was approved March 13, 2000, and fulfills the Survey and Manage S&G commitment identified in the EA.

Protests

In accordance with Forest Management Regulations at 43 CFR 5003.2, the decision for this timber sale will not become effective or be open to formal protest until the Notice of Sale is published "in a newspaper of general circulation in the area where the lands affected by the decision are located". Protests of this sale must be filed within 15 days of the first publication of the notice. For this project, the Notice of Sale will be published in the Albany Democrat Herald on or around September 1, 2000. The planned sale date is September 27, 2000.

Contact Person

For additional information concerning this decision or the BLM protest process, contact Randy Herrin (503) 315-5924 or Bob Hershey (503)315-5931, Cascades Resource Area Office, 1717 Fabry SE , Salem, Oregon 97306.

Approved by: Robert Ratcliffe
Acting Cascades Area Manager

Date 8/25/00

APPENDIX A: Project Design Features for the Selected Action

Table 3: Project Design Features for the Selected Action

Management Activity	Unit 1 (EA Unit B)	Unit 2 (EA Unit A)	Unit 3		Totals
			P.C. Unit 3 (EA Unit C)	R./W Unit 3	
Harvest Method	Regeneration	Regeneration	Regeneration clearing roads rights-of-way	Partial Cut (P.C.) (Thinning)	
Unit Acres					
Harvest Acres	27	17	2	46	92
Volume					
Cruised Volume (ccf - hundred cubic feet)	2867	1977	92	2298	7234
Cruised Volume (mmbf - million board feet)	1.968	1.297	.049	1.230	4.544
Logging Systems Acres					
Cable (One end or Partial Suspension)	20	13	0		33
Ground Based	7	4	48		59
Roads (feet)					
New Construction	665	1480	1305		3450
Decommissioning of New Construction	665	1480	1305		3450
Decommissioning of Existing Roads					8280
Site Preparation					
Broadcast Burning (Acres)	27	17	0		44
Slashing Residual (Acres)	27	17	0		44
Fire Trail (feet) in Units 1 and 2 (regeneration harvest)					7900
Reforestation					
Stock Type	All units will be planted with a combination of Douglas-fir, noble fir, western hemlock and western redcedar.			Seeded [4]	

[4] Seeded with native or non-invasive Species

8/14/2000

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

Tract 00-502
Stretcher

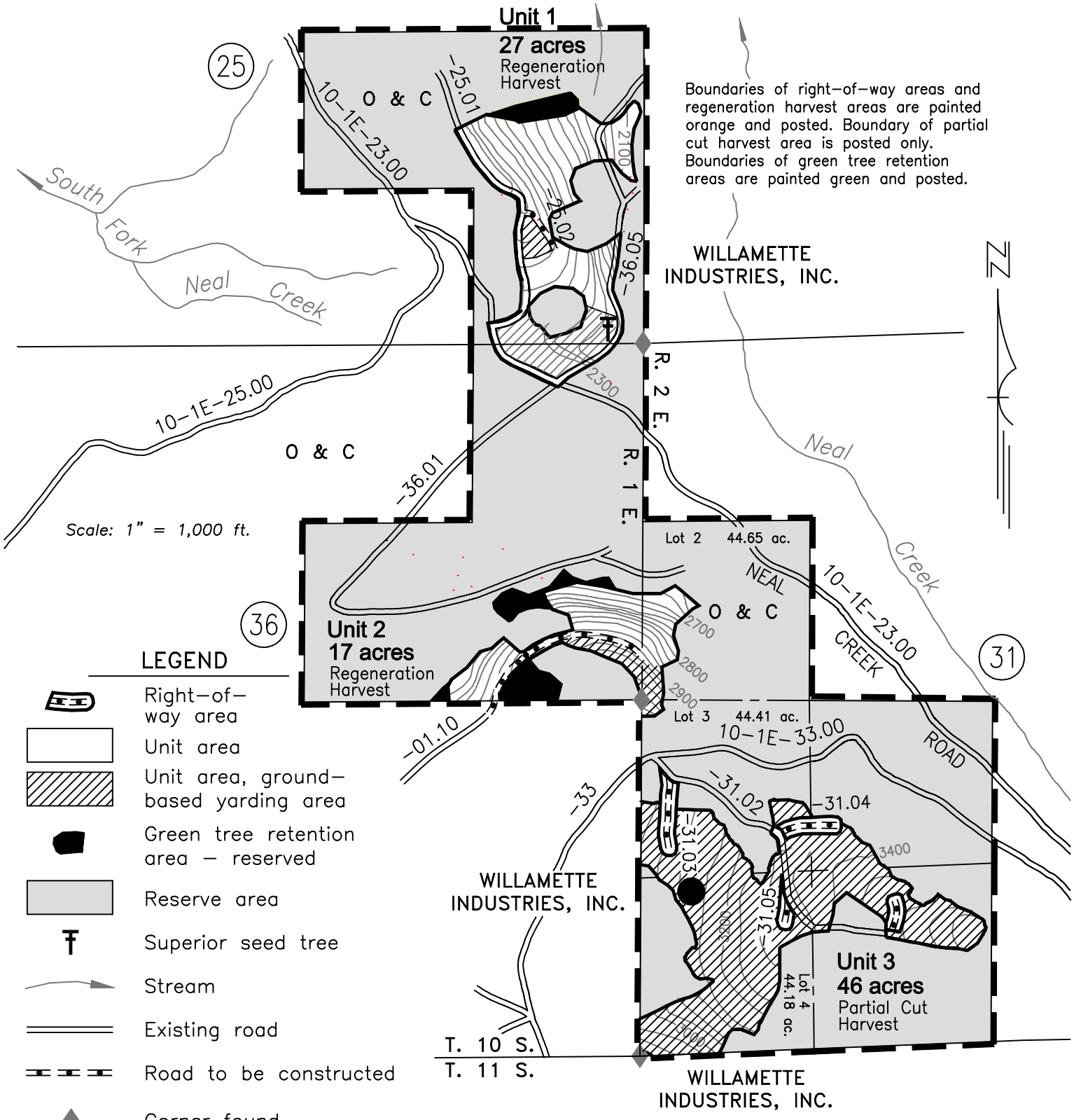
TIMBER SALE CONTRACT MAP

Contract No. OR080-TS0-502

Sections 25 & 36, T. 10 S., R. 1 E., W.M.
Section 31, T. 10 S., R. 2 E., W.M.

SALEM DISTRICT - OREGON

EXHIBIT A



LEGEND

- Right-of-way area
- Unit area
- Unit area, ground-based yarding area
- Green tree retention area – reserved
- Reserve area
- Superior seed tree
- Stream
- Existing road
- Road to be constructed
- Corner found
- Boundary – Contract area
- Boundary – Cutting area

Partial cut harvest area	46	acres
Regeneration harvest area	44	acres
Right-of-way area	2	acres
Green tree retension area (within harvest area)	5	acres
Reserve area	356.24	acres
Total Contract Area	453.24	acres

APPENDIX B: "Survey and Manage" Species Survey Summaries

I. FUNGI SURVEYS

1. Surveys

General surveys for survey and manage and protection buffer fungi, lichens, and bryophytes were conducted in the Stretcher Timber Sale areas during the summer and fall of 1998. Judge Dwyer's decision placed these sales in an enjoined status and additional surveys for seven species of fungi were required for the fall of 1999 and spring of 2000 in accordance with the December 17, 1999 settlement agreement. These species were Aleuria rhenana, Bondarzewia mesenterica, Otidea leporina, Otidea onotica, Otidea smithii, Polyozellus multiplex, and Sarcosoma mexicana.

Fall surveys for Aleuria rhenana, Bondarzewia mesenterica, Otidea leporina, Otidea onotica, Otidea smithii, and Polyozellus multiplex were initiated in Stretcher T.S. on 3 November 1999 and completed on 2 December 1999. Spring surveys for Sarcosoma mexicana were initiated in Stretcher T.S. on 8 March 2000 and completed on 5 April 2000.

The Stretcher Timber sale was inventoried using three intuitive controlled surveys spaced at two to three week intervals in accordance with the newly established protocol described in the BLM-Instruction Memorandum No. OR 2000-018.

All three Fall surveys were completed in accordance with protocol on 2 December 1999. Spring fungi surveys for all Units of Stretcher were initiated 8 March 2000 with second survey on 22 March 2000. All three Spring surveys were completed according to protocol on 5 April 2000. This information and the results of each survey are now a part of the record for this sale.

Table 4: Survey Results

Species	# Sites	Component	Location
Sarcosoma mexicanum	1	S&M 3[5], PB[6]	Unit 2 (EA Unit B)
Bonderzewia mesenterica	1	S&M 1,2,3	Unit 3 (EA Unit C)
Phaeocollybia scatesiae	1	S&M 1,3	Unit 3 (EA Unit C)
Phaeocollybia kauffmanii	4	1,3	Unit 1 (EA Unit A) & Unit 3 (EA Unit C)

[5] Survey and Manage Component 3 Species

[6] Protection Buffer

2. Mitigation and/or Adjustment

All of the newly discovered sites have been buffered in the general range of 50 - 200 foot radius, although exact buffer width, determined by considering a number of ecological variables including, aspect, slope, canopy closure, herbaceous ground cover, moss cover, and incident solar radiation, will vary from site to site and will be implemented with the intention of maintaining existing site and microsite conditions in accordance with the Management Recommendations for Survey and Manage Fungi (Castellano & O'Dell 1997).

II. TERRESTRIAL SURVEY AND MANAGE

1. Mollusks

a. Surveys

Surveys for Terrestrial mollusks identified as Survey and Manage species in the Northwest Forest Plan (NFP) were conducted according to draft protocol (Version 1.9, dated October 28, 1997). Eight mollusk species identified under the NFP could occur in the Cascades Resource Area.

Surveys were conducted during th spring of 1998 covering a survey area of 188 acres with 37.6 hours of search time. Seven survey and manage sites representing two of the eight species were identified within the survey area.

Table 5: Survey Results for Mollusks

Species	Total # Sites	Component	Location
Slugs			
Prophysaon coeruleum	6	S&M 1,2	Unit 1(EA unit A) Vicinity of Unit 2 (EA Unit B)
Prophysaon dubium	1	S&M 1,2	Vicinity of Unit 1 (EA unit A)

The most common species found was the blue-gray tail-dropper, *Prophysaon coeruleum*. They were found on four plots in the vicinity of unit 1(EA unit A) and two plots in the vicinity of unit 2 (EA unit B). In addition, a papillose tail-dropper was found adjacent to unit 1. The tail-droppers were found on the forest floor in hardwood and coniferous leaf litter in association with sword ferns.

No Survey and Manage mollusk species were found in or adjacent to unit 3 (EA unit C). Neither species found in the vicinity of the Stretcher timber sale meet the criteria for locally common as described in the draft Management Recommendations, version 2.0.

b. *Recommendations Incorporated into the Selected Action*

1) Maintain current canopy closures and micro climate around all known mollusk sites. This can be achieved by protecting all sites with a minimum of a one site tree no disturbance buffer. All known sites are located on fairly steep north and east facing slopes that are well shaded due to topography, understory vegetation, adjacent leave areas and/or reserves.

2) All protection areas around known mollusk sites will be considered as reserves outside harvest unit boundaries, and therefore, do not count towards green tree retention requirements for the proposed units.

3) In addition to green trees within mollusk reserves, leave 12 to 18 green trees per acre to meet green tree retention requirements in the proposed units. Concentrate green tree retention adjacent to riparian and mollusk reserves, further augmenting mollusk reserves beyond the one site potential tree buffer. In addition, leave all hardwoods as reserved trees, where possible. *Will leave an average of 19 green per acre.*

4) Minimize disturbance of the understory vegetation, forest floor litter, duff and woody debris within mollusk reserves. Avoid prescribed fire and logging activity within mollusk reserves.

The only ground disturbance that is anticipated within a mollusk reserve is in one of the two sites in the vicinity of unit 2. The known site is located approximately 150 feet north of a proposed road location. Impacts to the micro climate of the known site location are anticipated to be minimal due to its location 150 feet to the north over the edge of a north facing slope. In addition, there is a 5 acre fungi reserve to the south of the proposed road location. The roadbed is anticipated to be 16 feet wide and will be closed after harvest operations.

2. Red Tree Voles

Red tree vole (RTV) surveys (line transect) were conducted on the proposed project area on 10/06/99, 6/06/00, and 6/27/00. Approximately 31,000 linear feet of transect were surveyed to protocol. No known RTV nests were located within the project area.